





### (12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

#### (19) World Intellectual Property Organization International Bureau

# 

### (43) International Publication Date 15 November 2001 (15.11.2001)

## (10) International Publication Number WO 01/85444 A1

(51) International Patent Classification7:

B32B 7/12

- (21) International Application Number: PCT/US00/12537
- (22) International Filing Date: 9 May 2000 (09.05.2000)
- (25) Filing Language:

English

(26) Publication Language:

English

- (71) Applicant (for all designated States except US): FOUR PILLARS ENTERPRISE CORP. [--/--]; No 12, Lane 61, Kung-Fu Road, Sec. 1, Sanchung City, Taipei Hsien (TW).
- (71) Applicant and
- (72) Inventor: LIN, David [US/--]; 7F, No 10, Lane 204, Chung-Ho Street, Hsinchung City, Taipei Hsien (TW).
- (74) Agent: HSU Winston; 5F, No. 389, Fu-Ho Rd., Yungho City,, Taipei Hsien, 234, Taiwan, (CN).

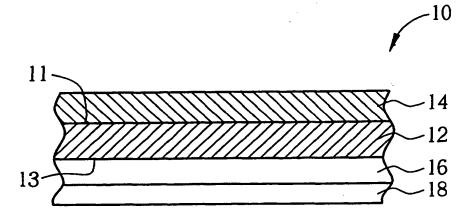
- (81) Designated States (national): AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, DE, DK, DM, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

#### Published:

with international search report

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: A COMPOSITE INSULATING ADHESIVE TAPE



(57) Abstract: A composite insulating adhesive tape is made of unhalogenated materials with superior insulation properties. The composite insulating tape has an embossed reinforcing polymer layer, a first flexible layer and an adhesive layer. The first flexible layer is used to improve the flexibility and conformity of the composite insulating adhesive tape, while the adhesive layer is used to make the insulating adhesive tape adhere tightly to an object. A method for forming the composite insulating adhesive tape is also disclosed. The first flexible layer is a material with a draw ratio at 20 °C that is below 400 %. The embossed reinforcing polymer layer is first impressed using an impressing process to form pores that are randomly distributed throughout the embossed reinforcing polymer layer. This enhances the flexibility of the embossed reinforcing polymer layer.